



U.S. Department
of Transportation
**Federal Aviation
Administration**

Advisory Circular

Subject: INFORMATION GUIDE FOR TRAINING
PROGRAMS AND MANUAL REQUIREMENTS IN THE
AIR TRANSPORTATION OF HAZARDOUS
MATERIALS

Date: 1/3/84
Initiated by: ACS-100

AC No: AC 121-21B
Change:

1. PURPOSE. This advisory circular provides certificate holders operating aircraft under Code of Federal Regulations (CFR) Title 14, Parts 121, 125, and 135, Federal Aviation Regulations, with information relevant to CFR Title 49, and the International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air. Personnel having duties and responsibilities in the acceptance, handling, and carriage of hazardous materials are the cargo receiving clerk/cargo dock supervisor, the cargo load planner/weight and balance clerk, the aircraft loader/forklift operator, the counter agent (if swift small package service is offered), the pilot-in-command, flight crewmembers, and other personnel assigned specific duties and responsibilities in the acceptance, handling, storage, loading, and unloading of hazardous materials.

2. CANCELLATION. AC 121-21A, Information Guide for Training Programs and Manual Requirements in the Air Transportation of Hazardous Materials, dated January 18, 1979, is canceled.

3. MANUAL REQUIREMENTS. Each manual should contain instructions and procedures on the following basic subjects:

a. MANUAL CONTENTS OF OPERATORS THAT WILL ACCEPT AND TRANSPORT HAZARDOUS MATERIALS.

(1) Acceptance of hazardous materials for air shipment. Procedures and instructions to ensure that:

(a) The material is properly packaged in accordance with the packaging rules; is properly marked, labeled, and documented; is within the quantity limitations; and is accompanied by the proper shipper certificates and DOT exemptions or competent authority certificates (if applicable) as determined by the inspection requirements for accepting shipments in 49 CFR Part 175.

(b) The package is not leaking, or damaged and is an authorized package in accordance with the applicable regulations.

(c) The materials are properly identified as being authorized for carriage in passenger-carrying or cargo-only aircraft and labeled for cargo-only aircraft if not acceptable for passenger-carrying aircraft.

(d) The materials are identified by their proper shipping name, classification, and identification number in accordance with 49 CFR Part 172 or the ICAO Technical Instructions.

(e) The packages are properly marked and labeled in accordance with 49 CFR or the ICAO Technical Instructions.

(f) Shipper certificates are reviewed to ensure that all necessary information is entered (include any additional information which may be required due to the commodity being shipped or methods of transportation incident to air transportation).

(g) Shippers are notified in the event the package is damaged in shipment (include specific instructions on radioactive materials).

(2) Storage. The manual should provide specific guidance to assure that:

(a) The storage of corrosive materials next to or in contact with flammable solids or oxidizing materials will be prevented. As a minimum, the segregation prescribed in Part 175.78, Table 1 must be maintained for all packages containing hazardous materials which might react dangerously with one another when stored in an aircraft next to each other or in a position that would allow a dangerous interaction in the event of leakage.

(b) The storage of radioactive materials labeled yellow II and/or yellow III will not exceed 50 transport indexes (TI) in a single storage location.

(c) Radioactive materials labeled yellow II and/or yellow III are stored in an area which is isolated from office personnel and pedestrian traffic. No loitering should be allowed in the area. Additionally, when packages marked as containing undeveloped film are present, the minimum separation distances prescribed in Part 175.703 should be maintained for radioactive materials labeled yellow II and yellow III.

(d) The storage of packages bearing a poison label will not be in the same location with foodstuffs, feeds, or any edible materials intended for consumption by humans or animals.

(3) Loading. The manual should contain specific guidance on:

(a) Loading of hazardous materials in aircraft in accordance with 49 CFR Subpart B, Part 175.

(b) Loading and carriage of hazardous materials in cargo-only aircraft, when other means of transportation are not available or impracticable, in accordance with § 175.320.

(c) Loading of radioactive materials in aircraft in accordance with 49 CFR § 175.700(a)(4) ensuring the TI limitations are in accordance with the provisions of §§ 175.75(a)(3) and 175.700(a)(1) and (2) and that radioactive packages are transported in accordance with §§ 175.701, 175.702, and 175.703.

(d) Loading of hazardous materials in cargo compartments or freight containers in cargo compartments in accordance with § 175.75.

(e) Loading Other Regulated Materials (ORM) aboard aircraft.

(f) Prohibition against loading packages bearing a poison label in the same compartment with foodstuffs, feeds, or any edible materials intended for consumption by humans or animals unless both commodities are in separate closed unit load devices (freight containers).

(4) Written notification of pilot-in-command. The manual should contain company procedures for notification of the pilot-in-command when hazardous materials are carried in an aircraft.

(5) Reporting certain hazardous materials incidents. The manual should include company procedures for reporting hazardous materials incidents in compliance with § 175.45 and discrepancies in compliance with § 175.31.

(6) Damage to hazardous materials packages. The manual should include company procedures for handling damaged packages in accordance with § 175.90 and radioactive contamination in accordance with 49 CFR § 175.700(b) and etiological agents reference § 175.45. This should include a listing of telephone numbers and addresses of organizations (Chemtrec; U.S. Energy Research and Development Administration; State public health department; Office of Hazardous Materials Regulation; and the Director, Center for Disease Control, U.S. Public Health, Atlanta, Georgia) that can provide technical advice on cleanup techniques and precautions to minimize the possibility of injury to employees and the general public

(7) Special requirements for poisons. The manual should include company procedures for handling packages bearing a poison label in compliance with 49 CFR § 175.630.

b. MANUAL CONTENTS OF OPERATORS NOT ACCEPTING HAZARDOUS MATERIALS. Operators who do not accept, handle, and store hazardous materials will have manuals which contain procedures and instructions to ensure that:

(1) Personnel receive adequate training to recognize those items classified as hazardous materials.

(2) No packages are accepted that contain a hazardous material.

(3) Damaged packages found to contain or suspected of containing hazardous materials are reported as hazardous materials incidents in compliance with 49 CFR § 175.45.

4. TRAINING PROGRAM.

a. Training manuals should contain adequate procedures and information to assist personnel in identifying packages marked or labeled as containing hazardous materials. These should include instructions on the acceptance, handling, and carriage of hazardous materials. Additionally, the manuals should include instructions governing the determination of proper shipping names and hazard classes; as well as packaging, labeling, and marking requirements. The information requirements for shipping papers, compatibility requirements, loading, storage, and handling requirements; as well as restrictions should also be included.

b. The certificate holder is responsible for assuring that any person who performs packaging, loading, or handling operations of hazardous materials has received necessary training.

c. Certificate holders who elect not to accept hazardous materials will ensure that their personnel (including crewmembers) are adequately trained to recognize those items which can be classified as hazardous materials.

d. All personnel responsible for duties involving hazardous materials will receive initial training and recurrent training on an annual basis through a FAA approved training program that has been established or is recognized by the certificate holder. This program should include information on the employees' duties concerning the identification, handling, storing, loading, unloading, and transporting hazardous materials. The following is a listing of suggested minimum training subjects and references. Operators that will not accept or transport hazardous materials need only train in the subjects which are indicated with an asterisk.

<u>Training Subjects</u>	<u>49 CFR References</u>	<u>ICAO</u>
* (1) Hazardous materials and classifications	Parts 171 and 172	1,1.1 - 2.11.3.1
(2) Shipping paper and certificate requirements	Part 172	4,4.1 - 4.3
* (3) Packaging, marking, and labeling	Parts 171, 172, 173, and 175	4,1-1 - 4,3.4
(4) Exemption authority	Part 107	1,1., 2,12
* (5) Exceptions from the regulations	Section 175.10	1,2.3
(6) Written notification of pilot-in-command	Section 175.33	5,4.1
(7) Keeping and replacement of lost or damaged labels	Section 175.40	5,2.6
* (8) Reporting hazardous materials incidents/deficiencies	Section 175.45	5,4.5 - 4.6
(9) Loading, unloading, and handling	Subpart B, Part 175	5,2.1 - 5,2.15
(10) Specific regulations applicable according to classification of material.	Subpart C, Part 175	2,12

e. Each certificate holder shall maintain records of the satisfactory completion of initial and recurrent training given to personnel who are assigned the duties and responsibilities for the handling and carriage of hazardous materials. All required training will be documented and these records will be maintained at the location where the personnel perform such duties.

f. Those certificate holders operating under provisions of FAR 121, 125 or 135 and those that use only themselves as pilot-in-command are responsible for assuring that hazardous materials shipments comply with 49 CFR Part 175. The FAA principal operations inspector charged with the overall surveillance of the operator will seek the assistance and recommendations of the Civil Aviation Security Field Office in evaluating the operator's hazardous materials program dealing with the acceptance and carriage of hazardous materials shipments.

g. Each certificate holder that elects not to accept hazardous materials shall ensure that crewmembers and handling staff are adequately trained to recognize those items classified as hazardous materials.

5. INFORMATION TO PASSENGERS. Each certificated operator who engages in for-hire transportation of passengers shall display notices to passengers in accordance with the provisions of 49 CFR § 175.25. These notices will be prominently displayed in each location at an airport where the operator issues tickets, checks baggage, and maintains aircraft boarding areas.

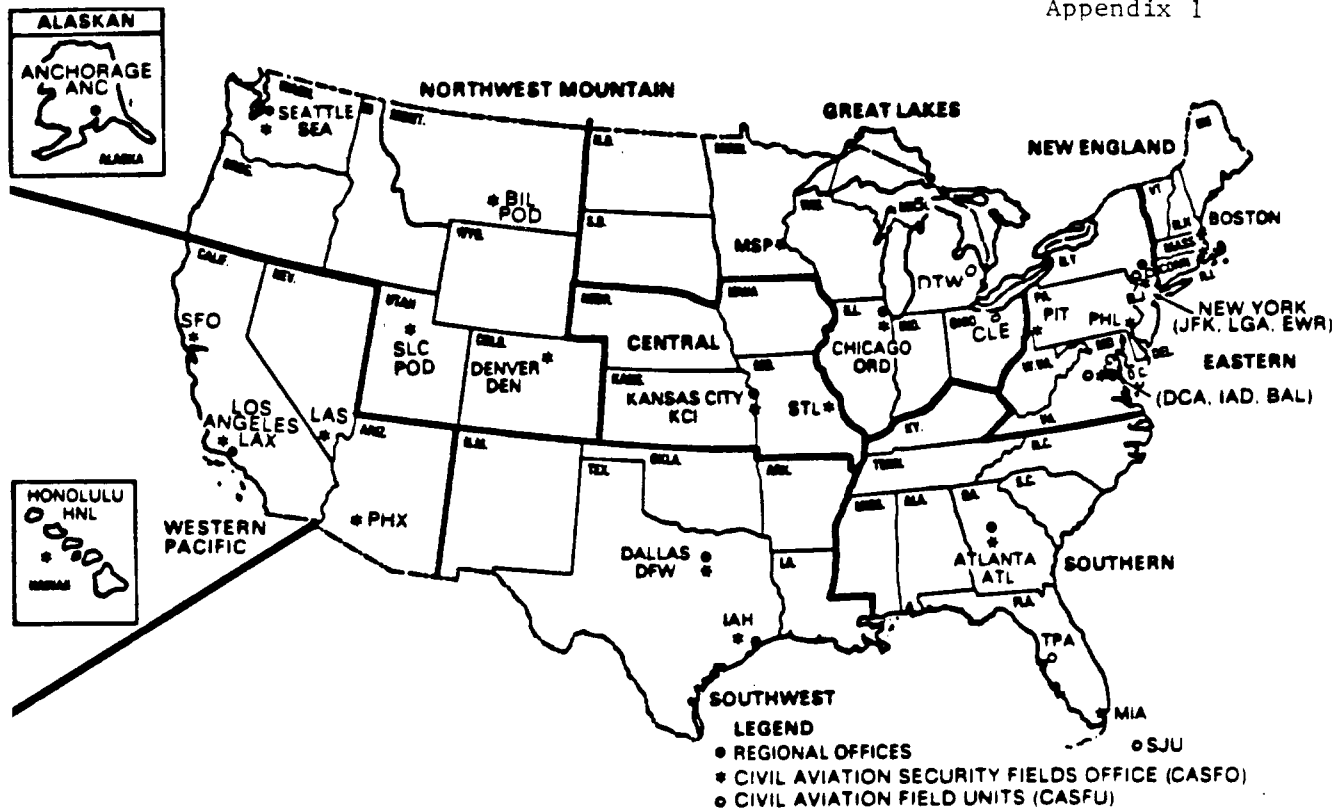
6. TECHNICAL INFORMATION AND ASSISTANCE.

a. With the incorporation of international regulations into the national regulations and their continued amendments, many inquiries from air carriers continue to be directed to FAA seeking clarification of the technical provisions of the regulations.

b. The FAA has designated a person in each region as a Hazardous Materials Coordinator with the specific duty to monitor the FAA's Hazardous Materials Compliance and Enforcement Program and provide technical information as required. In order to assist the aviation community dealing with hazardous materials, Appendix 1 lists the FAA's Hazardous Materials Coordinators by regional and geographical areas.



Billie H. Vincent

**ANE**

Hazardous Materials Coordinator
Civil Aviation Security Division, ANE-700
New England Region
12 New England Executive Park
Burlington, Massachusetts 01803
FTS: 836-1352
Comm: 617-273-7352

ASO

Hazardous Materials Coordinator
Civil Aviation Security Division, ASO-700
Southern Region
P.O. Box 20636
Atlanta, Georgia 30320
FTS: 246-7605
Comm: 404-763-7605

ACE

Hazardous Materials Coordinator
Civil Aviation Security Division, ACE-700
Central Region
601 East 12th Street
Kansas City, Missouri 64106
FTS: 758-3901
Comm: 816-374-3901

AMP

Hazardous Materials Coordinator
Civil Aviation Security Division, AMP-700
Western-Pacific Region
P.O. Box 92007
Worldway Postal Center
Los Angeles, California 90009
FTS: 966-6325
Comm: 213-536-6329

AAL

Hazardous Materials Coordinator
Civil Aviation Security Division, AAL-700
Anchorage Federal Office Building (APOB)
P.O. Box 14
701 C Street
Anchorage, Alaska 99513
FTS/Comm: 907-271-5566

AEA

Hazardous Materials Coordinator
Civil Aviation Security Division, AEA-700
Eastern Region
JFK International Airport
Jamaica, New York 11430
FTS: 667-1252
Comm: 212-917-1252

AGL

Hazardous Materials Coordinator
Civil Aviation Security Division, AGL-700
Great Lakes Region
2300 East Devon Avenue
Des Plaines, Illinois 60018
FTS: 384-7114
Comm: 312-694-7114

ASW

Hazardous Materials Coordinator
Civil Aviation Security Division, ASW-700
Southwest Region
P.O. Box 1689
Fort Worth, Texas 76101
FTS: 734-2500
Comm: 817-877-2508

ANM

Hazardous Materials Coordinator
Civil Aviation Security Division, ANM-700
Northwest Mountain Region
17900 Pacific Highway South
C-68966
Seattle, Washington 98168
FTS: 446-2700/2722
Comm: 206-431-2700/2722

WASHINGTON HEADQUARTERS

Hazardous Materials Program Manager
Office of Civil Aviation Security, ACS-100
800 Independence Avenue, SW.
Washington, D.C. 20591
Comm/FTS: 202-426-4817/4818